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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,165	07/12/2004	Rolf Theo Anton Apetz	NL020017	5379

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EXAMINER	
SANEI, HANA ASMAT	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/501,165	ANTON APETZ ET AL.	
	Examiner	Art Unit	
	Hana A. Sanei	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment, filed on 3/1/06, has been entered and acknowledged by the Examiner.

Claims 1-7 are pending in the instant application

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heider et al (US 5592049) in view of Claussen et al (US 6025065).

Regarding Claim 1, Heider teaches a discharge vessel (see at least Figs. 1, 4) with a ceramic wall (alumina ceramic cylindrical ends, 19b) which is closed at one end by a plug (21b) provided with an electrode (electrode shaft 10b supporting an electrode system) arranged in the discharge vessel, the ceramic wall and the plug being jointed by a fusion joint (sealing material, 7b).

Heider fails to teach the fusion joint being formed of an alloy comprising substantially molybdenum and aluminum. In the same field of endeavor of ceramic molding, Claussen teaches a ceramic molding that comprises an alloy comprising substantially molybdenum and aluminum ($AlMo_3$, Col. 5, lines 50-60 & Example 13). Claussen teaches the addition of an aluminide $AlMo_3$ to the ceramic composition of Heider's sealing material 7b for the added benefit of ensuring low specific weight, good high-temperature stability and resistance to oxidation (Col. 2, lines 59-64). Claussen teaches the previous production of $MO + Al \rightarrow Al_2O_3 + M$ (Col. 2, line 47) in addition to the introduction of a second phase into the ceramic matrix (ie: ZrO_2, Col. 1, lines 42-46) and suggests, via means of an inexpensive procedure, advantageously modifying the ceramic molding to provide the inclusion of an aluminide for the added benefits stated above. This new inclusions modifies the production to $xAl + yMO \rightarrow zMAl + nAl_2O_3$ (Col. 5, line 10), where the new added feature is the MAl, an aluminide such as $AlMo_3$. It should be noted that further added elements such as oxides are thereby supplemented following the production of the new aluminide ceramic molding (Col. 6, lines 10-14). Claussen's compositional improvement of the ceramic molding directly applies to Heider's ceramic molding 7b, since 7b is composed of the a ceramic containing material of 5%MoO_3, 38% Y_2O_3, 30% Al_2O_3, and 27% SiO_2. Where Y_2O_3 and SiO_2 are examples of Claussen's added "second phase" elements such as oxides thereof. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the composition of the fusion joint, as disclosed by

Claussen, in the device of Heider in order to ensure low specific weight, good high-temperature stability and resistance to oxidation.

Regarding Claim 2, Heider-Claussen teaches that the fusion joint (7b of '049) comprises at least 25 atom percent Mo ($AlMo_3$, Col. 5, lines 50-60 & Example 13 of '065).

Regarding Claim 3, Heider-Claussen teaches that the fusion joint (7b of '049) comprises $AlMo_3$ ($AlMo_3$, Col. 5, lines 50-60 & Example 13 of '065).

Regarding Claim 4, Heider teaches that the plug comprises molybdenum (30% molybdenum in plug, Col. 8, lines 56-59).

Regarding Claim 6, Heider teaches that the lamp is a metal halide lamp (Col. 3, lines 5-7).

Regarding Claim 7, Heider teaches that the lamp has a power rating of at least 100 W (35W – 150W, Col. 4, lines 35-38).

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heider et al (US 5592049) in view of Claussen et al (US 6025065) in further view of Wei et al (US 6020685).

Regarding Claim 5, Heider-Claussen teaches the invention set forth above (see rejection in Claim 1 above). Heider-Claussen fails to teach a ceramic wall comprising aluminum nitride. In the same field of endeavor, Wei teaches a ceramic wall comprising aluminum nitride (6b, see at least Fig. 2; Col. 10, lines 55-60). Wei teaches the addition of aluminum nitride for the added benefit of ensuring a high mechanical strength in a wide temperature range and to ensure excellent stability. Wei teaches the suitability of

using a ceramic wall formed of aluminum nitride. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the composition of the ceramic wall, as disclosed by Wei, in the device of Heider-Claussen in order ensure a high mechanical strength in a wide temperature range and to ensure excellent stability and to choose from one of the materials disclosed by Wei, since Wei teaches the suitability of using a ceramic wall formed of aluminum nitride and it has been held to be within the general skill of an artisan to select a known material on the basis of the intended use. See MPEP 2144.07.

Other Sited Prior Art

Shinozaki et al (US 4766097) teaches the specific generic benefits of AlN.

Conclusion

As a new rejection is applied to non-amended subject matter this action is made non-final.

Response to Arguments

Regarding applicant's assertion that Nimii (US 6635993) teaches away from a fusion joint having an alloy comprising substantially molybdenum and aluminum in view of the fact that Niimi's inventive principle is solely directed to fusion joints consisting of porous bone structure and intermediate glass, the Examiner finds this to be persuasive, as such rejection withdrawn.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hana A. Sanei whose telephone number is (571) 272-8654. The examiner can normally be reached on Monday- Friday, 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hana A. Sanei
Examiner

Joseph Williams
Primary Examiner